

### **REMARKS**

In the Office Action, the Examiner rejected claims 16-42. Claims 1-15 are withdrawn from consideration. In view of the following remarks, Applicants respectfully assert that the pending claims are patentably distinct from the prior art and in condition for allowance.

### **Rejections Under 35 U.S.C. § 102**

In the Office Action, the Examiner rejected claims 16-17, 23-25, and 27 under 35 U.S.C. § 102(e) as anticipated by Melker et al. (U.S. Patent No. 6,535,714 B2; hereinafter Melker). Applicants respectfully assert that these pending claims are patentable over the cited reference in view of the following legal precedent and remarks.

### ***Legal Precedent***

First, Applicants remind the Examiner that, during patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification. *See In re Prater*, 415 F.2d 1393, 1404-05, 162 U.S.P.Q. 541, 550-51 (C.C.P.A. 1969); *see also In re Morris*, 127 F.3d 1048, 1054-55, 44 U.S.P.Q.2d 1023, 1027-28 (Fed. Cir. 1997); *see also* M.P.E.P. §§ 608.01(o) and 2111. Interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *See In re Cortright*, 165 F.3d 1353, 1359, 49 U.S.P.Q.2d 1464, 1468 (Fed. Cir. 1999); *see also* M.P.E.P. § 2111. As further explained in Section 2111.01 of the M.P.E.P., the words of the claim must be given their plain meaning unless the applicant has provided a clear definition in the specification. *See In re Zletz*, 893 F.2d 319,

321, 13 U.S.P.Q.2d 1320, 1322 (Fed. Cir. 1989). Again, the plain meaning refers to an interpretation by those of ordinary skill in the art. *See In re Sneed*, 710 F.2d 1544, 218 U.S.P.Q. 385 (Fed. Cir. 1983).

Second, anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under section 102, a single reference must teach each and every limitation of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). Accordingly, the Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter. The prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Third, if the Examiner relies on a theory of inherency, the extrinsic evidence must make clear that the missing descriptive matter is *necessarily* present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1999) (Emphasis Added). The mere fact that a certain

thing *may* result from a given set of circumstances is not sufficient. *Id.* In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The Examiner, in presenting the inherency argument, bears the evidentiary burden and must adequately satisfy this burden. *See id.* Regarding functional limitations, the Examiner must evaluate and consider the functional limitation, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. *See* M.P.E.P. § 2173.05(g); *In re Swinehart*, 169 U.S.P.Q. 226, 229 (C.C.P.A. 1971); *In re Schreiber*, 44 U.S.P.Q.2d 1429, 1432 (Fed. Cir. 1997). If the Examiner believes the functional limitation to be inherent in the cited reference, then the Examiner “must provide some evidence or scientific reasoning to establish the reasonableness of the examiner’s belief that the functional limitation is an inherent characteristic of the prior art.” *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Inter. 1986).

### ***Background***

As discussed in the present application, a need exists for efficient and accurate configuration, training, servicing, troubleshooting, administration and other functions for medical systems. Typically, service personnel perform these functions through actual meetings, training courses, service calls, and so forth. However, these conventional techniques are costly and error

prone. The subject matter disclosed and claimed in the present application relates generally to collaborative computing systems and environments for training and interacting with software, medical equipment, and persons by user interactive screen sharing in a collaborative environment between remote computing systems and persons. This collaborative computing environment facilitates interactive instruction of a trainee by a remote trainer. For example, screen sharing techniques facilitate collaboration between a trainer and trainee, located at separate or remote consoles, by providing simultaneous viewing of relevant information and mutual control and interaction with devices and software.

### ***Claims***

In accordance with the benefits described above, independent claim 16 recites “providing a *collaborative computing environment* between a trainee and a remote trainer” and “*interactively instructing* the trainee via the *collaborative computing environment*.” (Emphasis added). In view of the Examiner’s rejection and the foregoing claim features, Applicants respectfully assert that the Examiner’s proposed scope for the terms of claim 16 are completely unreasonable and inconsistent with the scope of the specification and the understanding of one of ordinary skill in the art. See M.P.E.P. §§608.101(o) and 2111. As recited, the computing environment is *collaborative* between *both* a trainee and a remote trainer, rather than a *one-way* channel of remote control or viewing by an outsider. Moreover, the instruction is provided *interactively* by means of this *collaborative* computing environment. One of ordinary skill in the

art would most reasonably interpret these claim features to provide *collaboration* between *both* the trainee and the trainer, but not in a *one-sided* or non-collaborative manner.

### ***Omitted Features***

In view of the foregoing claim analysis, Applicants respectfully assert that the cited reference does not disclose all of the features recited in the rejected claims. In contrast to independent claim 16, Melker discloses *device simulation* training, which may involve user interaction with a simulated image that *resembles* the device. See column 2, lines 52-54 and 65-67; column 6, lines 3-20. Moreover, as disclosed by Melker, the user obtains this device simulation training *locally* at a part-task trainer (PTT) 10. See column 4, line 63 – column 5, line 14. Neither the simulation training nor the simulated image of Melker involves any sort of *collaborative* computing environment, much less one *between a trainee and a remote trainer* as recited in the instant claim. As discussed above, collaboration within the scope of the present application is much more than mere *one-sided* remote control or viewing. Accordingly, one of ordinary skill in the art would not reasonably interpret a *collaborative computing environment* to fall within the Melker reference's disclosure of a mere *interface between a user and a device*. See column 4, lines 60-63; column 5, lines 10-11. In view of this omitted claim feature, Melker cannot anticipate claim 16.

Additionally, one of ordinary skill in the art would not reasonably interpret “interactively instructing ... *via the collaborative computing environment*” to fall within the scope of the

Melker reference's disclosure of *non-collaborative* device simulation training. *See* col. 2, lines 48-62; col. 3, lines 24-37, 55-61; col. 4, lines 2-6. Again, the part-task trainer (PTT) 10 of Melker provides *local* device simulations *without any collaboration*, much less collaboration involving both a trainee and a remote trainer. *See* column 4, line 63 – column 5, line 14. In view of the foregoing claim analysis and legal precedent, Applicants respectfully assert that Melker is absolutely devoid of any teaching or suggestion of a *collaborative* computing environment. In fact, the nature of the *one-sided* interface disclosed by Melker is antithetical to the *collaborative interactivity* set forth in claim 16. In other words, the mere disclosure of a one-sided interface between a user and a device is contrary to the meaning of the term “collaborative” as recited in claim 16. *See* column 4, lines 60-63; column 5, lines 10-11. In view of this omitted claim feature, Melker cannot anticipate claim 16.

### ***Features Not Inherent***

Moreover, if the Examiner asserts a theory of inherency, Applicants respectfully stress that the cited reference *does not* explicitly and/or inherently disclose all of the features as recited in claim 16. The Examiner has presented neither a basis in fact nor technical reasoning that the presently claimed *collaborative* computing environment necessarily flows from the *one-sided* interface disclosed by Melker. Rather, as discussed above, the cited reference merely discloses a one-sided interface for device simulation training without any reference or hint of collaboration, much less collaboration between a trainee and a remote trainer. *See* column 4, lines 60-63; column 5, lines 10-11. As set forth in the foregoing legal precedent, the *mere possibility* of a

collaborative computing environment and/or interactive training via the collaborative computing environment is insufficient to support a position of inherency. *See In re Robertson*, 169 F.3d 743 (Fed. Cir. 1999). Again, in view of these explicitly and inherently omitted claim features, Melker cannot anticipate claim 16.

***Request Withdrawal of Section 102 Rejections***

In accordance with the arguments presented above, Applicants respectfully assert that independent claim 16 and its respective dependent claims 17, 23-25, and 27 are patentable over Melker. For these reasons, Applicants respectfully request allowance of the foregoing claims.

**Rejections Under 35 U.S.C. § 103**

In the Office Action, the Examiner rejected claims 18-22, 26, and 28-42 under 35 U.S.C. § 103(a) as unpatentable over Melker in view of Edlund et al. (U.S. Patent No. 6,085,227; hereinafter Edlund). Applicants respectfully traverse this rejection.

***Legal Precedent***

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

Accordingly, to establish a *prima facie* case, the Examiner must not only show that the

references taught or suggested *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Moreover, the Examiner must provide objective evidence, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002).

### ***Claims***

Turning to the claims, independent claim 28 recites, *inter alia*, “sharing a graphical user interface” and “collaboratively interacting.” Independent claim 34 recites, *inter alia*, “*a user interface shared by the first and second computing systems for collaboratively interacting with the medical diagnostic imaging system.*” In view of the Examiner’s rejection and the foregoing claim features, Applicants respectfully assert that the Examiner’s proposed scope for the terms of claim 28 and 34 are completely unreasonable and inconsistent with the scope of the specification and



the understanding of one of ordinary skill in the art. See M.P.E.P. §§608.101(o) and 2111. As recited above, the user interface is *shared* for *collaborative* interaction with the medical diagnostic imaging system, rather than a *one-way* or *one-sided* interface permitting only viewing or one-sided control. One of ordinary skill in the art would most reasonably interpret these claim features to provide *sharing between at least two computing environments or systems*, but not a mere *one-sided* control or viewing.

#### ***Omitted Features***

In view of these claim features, the primary reference fails to teach or suggest *sharing* of a user interface or *collaboratively* interacting, as recited in independent claims 28 and 34. First, Melker is devoid of the claim feature “collaboratively interacting” for the reasons discussed in detail above. Second, the Examiner conceded that the primary reference does not disclose *sharing* a graphical user interface. See Paper No. 4, page 3. Accordingly, the primary reference is missing at least two features.

Turning to Edlund, Applicants stress that Edlund does not obviate the deficiencies of the primary reference. Instead, Edlund merely discloses *one-sided* remote controlling and observing, which is antithetical to *collaboratively interacting*. See col. 1, lines 31-42; col. 2, lines 4-36; col. 4, lines 47-48; and col. 4, lines 50-63. First, the act of observing, watching, or monitoring something does not involve any sort of collaboration or interaction, much less collaboratively interacting as set forth in the instant claims. Second, in view of the foregoing claim analysis, the

ability of one or more persons to control a device remotely does not teach or suggest collaborative interaction, as set forth in the instant claims. *See* col. 4, lines 50-63. The remote control functions disclosed by Edlund are only *one-sided* and devoid of any collaboration. Applicants remind the Examiner that a *prima facie* case of obviousness requires consideration of each and every element in context of the claim as a whole. For the reasons set forth above, Edlund does not teach or suggest the “collaboratively interacting” feature missing from Melker.

Applicants also stress that the user interface disclosed by Edlund is a typical *unshared* interface, rather than a *shared* user interface as recited in independent claims 28 and 34. *See* col. 3, lines 47-52; col. 4, lines 15-23. Edlund is clearly directed toward *one-sided* access of *remote* devices, which are not otherwise accessible to the user. *See* column 1, lines 24-42; column 2, lines 1-2. The mere provision of remote access to multiple users does not teach or suggest a *shared user interface*, but rather these are separate one-sided access points. *See* column 3, lines 46-52; col. 4, lines 50-63. Again, *one-sided* control or remote viewing is much different from *multi-sided* techniques, such as sharing and collaboration. Accordingly, Applicants respectfully assert that Edlund is absolutely devoid of any teaching or suggestion of a *shared* user interface as recited in claims 28 and 34. Again, Applicants remind the Examiner that a *prima facie* case of obviousness requires consideration of each and every element in context of the claim as a whole. For the reasons set forth above, Edlund does not teach or suggest the shared user interface feature missing from Melker.

Accordingly, the cited references taken alone or in combination fail to teach or suggest the features recited in the independent claims 28 and 34.

***Features Not Inherent***

Again, if the Examiner asserts a theory of inherency, Applicants respectfully assert that the cited references *do not* inherently disclose either collaborative interaction or a shared user interface as recited in claims 28 and 34. The Examiner has presented neither a basis in fact nor technical reasoning that the presently claimed *collaborative* interaction or *shared* user interface necessarily flows from the *one-sided* interfaces disclosed by Melker and Edlund. Remote control and/or remote viewing does not necessarily involve any sort of collaboration or sharing, particularly sharing of a user interface. In view of the explicit disclosures of Melker and Edlund, the provision of sharing and collaboration is nothing more than a *mere possibility* without any rational relationship to the explicit teachings of the cited references. As set forth in the foregoing legal precedent, the *mere possibility* of a collaborative interaction and/or sharing of a user interface is insufficient to support a position of inherency. *See In re Robertson*, 169 F.3d 743 (Fed. Cir. 1999).

Accordingly, the cited references taken alone or in combination fail to teach or suggest the features recited in the independent claims 28 and 34.

***No Motivation or Suggestion to Combine***

As discussed above, the Examiner cited Melker in view of Edlund in establishing alleged grounds for a 35 U.S.C. §103 obviousness rejection. Applicants respectfully submit that a combination of these references is improper. The Applicants emphasize the lack of any motivation or suggestion to combine the cited references. First, the Examiner has not provided objective evidence of the requisite motivation or suggestion to combine these two references. Second, it appears that the Examiner is using hindsight reconstruction to pick and choose among isolated disclosures to deprecate the present claims.

First, the Examiner failed to provide *objective evidence* of the requisite motivation or suggestion to combine the cited references. Instead, the Examiner conclusively stated that it would have been obvious “to modify the collaborative computing environment described by in (*sic*) Melker, by providing a shared graphical user interface in order to allow multiple users to simultaneously view the status of a remote device and an associated scientific instrument or experiment; thus conducting an effective group instruction as suggested in Melker.” Paper No. 4, page 4. The Examiner did not support this statement with any objective evidence. Applicants respectfully assert that there is no reason or suggestion to combine Melker, which involves *simulation* (*see* Melker, col. 6, lines 3-20), and Edlund, which involves *actual* operation (*see* Edlund, col. 1, lines 31-42). Accordingly, the Applicants respectfully challenge the Examiner to provide objective evidence of this alleged reason to combine the references in the manner suggested.

Second, the Examiner appears to have combined the references based on impermissible hindsight reconstruction. If the Examiner was unaware of the Applicants' disclosure, then the Examiner would have absolutely no reason to combine Melker with Edlund. Based on the Examiner's conclusive statement mentioned above, Applicants believe the Examiner is using the present application as a means to pick and choose among isolated disclosures to deprecate the present claims. For this reason, the Applicants believe the Examiner's proposed combination is improper and unsupported by objective evidence.

***Request Withdrawal of Section 103 Rejections***

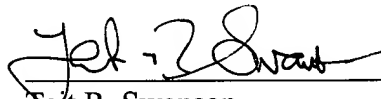
The Melker reference clearly fails to disclose any collaborative interaction or shared user interface. Moreover, the Edlund reference does not obviate the deficiencies of Melker. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of independent claims 28 and 34. Applicants also request that the Examiner withdraw the rejection of claims 29-33 and 35-42, which depend from claims 28 and 34, respectively, in light of their dependence from claims 28 and 34 and for other unique features recited therein.

**Conclusion**

The Applicants respectfully submit that all pending claims should be in condition for allowance. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

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Falt R. Swanson  
Registration No. 48,226  
FLETCHER YODER  
P.O. Box 692289  
Houston, TX 77269-2289  
(281) 970-4545